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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/672,943	09/28/2000	Mitsugu Kobayashi	YKI-0053	7622

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CANTOR COLBURN, LLP  
55 GRIFFIN ROAD SOUTH  
BLOOMFIELD, CT 06002

EXAMINER
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NGUYEN, KIMNHUNG T

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 08/03/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/672,943

Applicant(s)

KOBAYASHI ET AL.

Examiner

Kimnhung Nguyen

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-4 is/are rejected.
- 7) ☒ Claim(s) 5-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

This Application has been examined. The claims 2-10 are pending. The examination results are as following.

#### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 2-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Mumford (US 6,377,249).

Regarding claim 2, Mumford discloses in figure 1, a digitizing apparatus (light pen 20) comprising a light emitting display device (see column 6, lines 20-21) having a plurality of display pixels (14) disposed in a matrix and a detector (see photo sensitive detector 23r) in contact with the display surface of the display device (12) for detecting an emissive state of a display pixel at the position of contact (see column 7, lines 59-65), wherein said plurality of display pixels to emit light in a predetermined sequence for obtaining coordinate information of the position of contact of the detector (see column 1, lines 44-48).

Art Unit: 2674

Regarding claim 3, Mumford discloses in figure 1, a digitizing apparatus comprising an electroluminescence display having a plurality of display pixels (14) disposed in a matrix; a pen (20) for contacting the display surface of said display and for detecting the emissive state of the display pixel at the position of contact (see column 7, lines 59-65); a display control circuit for displaying a image on said display by determining timing of horizontal scanning and vertical scanning and for causing said plurality of display pixels to emit light in dot sequence with the timing of horizontal scanning and vertical scanning; and a digitizing processing circuit for generating coordinate information on the basis of change in detection output of said pen with respect to timing of horizontal scanning and vertical scanning of said display control circuit (see column 1, lines 44-48).

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mumford (US 6,377,249) in view of Tomio et al. (US patent 5,745,085).

Mumford discloses in figure 1, a digitizing apparatus (light pen 20) comprising a light emitting display device (see column 6, lines 20-21) having a plurality of display pixels (14) disposed in a matrix and a detector (see photo sensitive detector 23r) in contact with the display surface of the display device (12) for detecting an emissive state of a display pixel at the position of contact (see column 7, lines 59-65), wherein said plurality of display pixels to emit light in a predetermined sequence for obtaining coordinate information of the position of contact of the detector (see column 1, lines 44-48).

However, Munford does not disclose wherein the electro luminescence display comprises a horizontal driver circuit for applying a voltage to each column of the plurality of

display pixels at the timing of horizontal scanning; and a vertical driver circuit for driving the plurality of display pixels in row units at the timing of vertical scanning. Tomio et al. disclose in figure 1, a electroluminescence display comprises a horizontal driver circuit (31) for applying a voltage (39) to each column of the plurality of display pixels at the timing of horizontal scanning; and a vertical driver circuit for driving the plurality of display pixels in row units at the timing of vertical scanning (see figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of the horizontal driver circuit for applying a voltage to each column of the plurality of display pixels at the timing of horizontal scanning; and a vertical driver circuit for driving the plurality of display pixels in row units at the timing of vertical scanning as taught by Tomio et al. into the digitizing apparatus of Mumford's system because this would control the current which increases the turn-on display rate of the cell portion and detect the current flowing into the cell portion.

***Allowable Subject Matter***

4. Claims 5-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The present invention is directed to a digitizing apparatus comprising an electroluminescence display having a plurality of display pixels disposed in a matrix; a pen for contacting the display surface of said display and for detecting the emissive state of the display pixel at the position of

Art Unit: 2674

contact; a display control circuit for displaying a image on said display by determining timing of horizontal scanning and vertical scanning and for causing said plurality of display pixels to emit light in dot sequence with the timing of horizontal scanning and vertical scanning; and a digitizing processing circuit for generating coordinate information on the basis of change in detection output of said pen with respect to timing of horizontal scanning and vertical scanning of said display control circuit. The combination of closest prior art, Mumford (US 6,377,249) and Tomio et al. (US patent 5,745,085) show a similar system which also disclose an electroluminescence display having a plurality of display pixels disposed in a matrix; a pen for contacting the display surface of said display and for detecting the emissive state of the display pixel at the position of contact (see column 7, lines 59-65); a display control circuit for displaying a image on said display by determining timing of horizontal scanning and vertical scanning and for causing said plurality of display pixels to emit light in dot sequence with the timing of horizontal scanning and vertical scanning; and a digitizing processing circuit for generating coordinate information on the basis of change in detection output of said pen with respect to timing of horizontal scanning and vertical scanning of said display control circuit. However, they fail to teach wherein the display control circuit causes said plurality of display pixels to emit light at a predetermined luminance in dot sequence one row at a time during a blanking period of each horizontal scanning or horizontal scanning period as claims 5 and 7; or at a time in dot sequence during a second horizontal or vertical scanning period as claims 6 and 8; or said display control causes said plurality of display pixels to emit light at a predetermined luminance after once setting said plurality of display pixels to a none-emissive state as claims 9-10.

Art Unit: 2674

***Response To Arguments***

4. Applicant's argument filed on 2-27-04 has been fully considered but they are not persuasive in view of new ground rejection.

Applicant argues that the prior art does not disclose "a pen for contacting the display surface of said display and for detecting the emissive state of the display pixel at the position of contact".

However, this argument is not persuasive due to the new ground rejection as discusses above.

***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number (703) 308-0425.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on (703) 305-4709.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D. C. 20231

**Or faxed to:**


**(703) 872-9314 (for Technology Center 2600 only).**

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive,  
Arlington, VA Sixth Floor (Receptionist).

Art Unit: 2674

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kimnhung Nguyen  
July 24, 2004

  
RICHARD HJERPE 7/26/04  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600